

## **1.0 Description of Procedure**

Electrical osteogenic stimulation is used to augment the repair of long bones. Nonunion of long bone fractures, for the purpose of this policy, exist when serial radiographs (AP and lateral images) show no progressive healing in a fracture for three or more months prior to starting treatment with the electrical osteogenic stimulator. Electrical osteogenic stimulation can be performed invasively, semi-invasively or non-invasively.

- Invasive devices provide electrical stimulation directly at the fracture site through implantation of a coiled cathode wire into the fracture site. The power pack for the device is implanted in an intramuscular or subcutaneous space near the fracture site and connected to the cathode, creating a self-contained system with no external components. The semi-invasive procedure, called percutaneous, uses an external power supply and electrodes are inserted through the skin into the bone.
- Non-invasive devices consist of pads that are attached to an external power supply and placed over the cast or directly on the skin. An electromagnetic field is created between the pads at the fracture site.

## **2.0 Eligible Recipients**

### **2.1 General Provisions**

Medicaid recipients may have service restrictions due to their eligibility category that would make them ineligible for this service.

### **2.2 Special Provisions**

Early and Periodic Screening, Diagnostic, and Treatment (EPSDT) is a federal Medicaid requirement that provides recipients under the age of 21 with medically necessary health care to correct or ameliorate a defect, physical or mental illness or a condition identified through a screening examination. While there is no requirement that the service, product or procedure be included in the State Medicaid Plan, it must be listed in the federal law at 42 U.S.C. § 1396d(a). Service limitations on scope, amount or frequency described in this coverage policy do not apply if the product, service or procedure is medically necessary.

The Division of Medical Assistance's policy instructions pertaining to EPSDT are available online at <http://www.dhhs.state.nc.us/dma/prov.htm>.

## **3.0 When the Procedure is Covered**

1. Invasive electrical osteogenic stimulation is covered in cases unresponsive to conventional treatment modalities for:
  - Adjunct treatment to spinal fusion in recipients with a prior history of failed spinal fusion at the same site or recipients undergoing multiple level fusion. A multiple level fusion involves three or more vertebrae.
  - Non-union of long bones.
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2. Non-invasive electrical osteogenic stimulation is covered in cases unresponsive to conventional treatment modalities for:
  - Adjunct treatment to spinal fusion in recipients with a history of failed spinal fusion at the same site or recipients undergoing multiple level fusion. A multiple level fusion involves three or more vertebrae.
  - Congenital pseudoarthroses.
  - Failed fusion where a minimum of nine months has elapsed since the last surgery.
  - Non-union of long bones.

#### **4.0 When the Procedure is Not Covered**

1. Electrical osteogenic stimulation is not covered when the coverage criteria in **Section 3.0**, are not met.
2. Electrical osteogenic stimulation is not covered for the following contraindicators:
  - Any indication of malignant change or pathologic fractures.
  - Bone “gaps” wider than one centimeter.
  - Childhood (epiphyseal growth changes).
  - Decelerated fracture healing process as identified by x-ray.
  - Gross motion at the non-union site in all planes when the limb is immobilized.
  - Interposition of soft tissue or sequestrum between fragments.
  - New fractures.
  - Non-union in the presence of a synovial pseudoarthrosis.
  - The presence of draining osteomyelitis (active osteomyelitis).
  - The presence of magnetic fixation devices in the areas to be stimulated.

#### **5.0 Requirements for and Limitations on Coverage**

1. Prior approval is required. The following medical documentation must be submitted with the prior approval request:
  - The date of the injury and/or re-injury.
  - The non-union of a long bone fracture must be documented by a minimum of two sets of radiographs, separated by a minimum of 90 days, each including multiple views of the fracture site with a written interpretation by a physician stating that there has been no evidence of fracture healing between the two sets of radiographs.
  - Medical documentation of a failed fusion of a joint other than in the spine where a minimum of nine months has elapsed since the last surgery.
  - Medical evidence of congenital pseudarthrosis.
2. Failure of a previous bone graft is not a contraindication to the use of a bone stimulator, provided coverage criteria are met.
3. Stimulators require monthly inspection by the orthopedic surgeon.

4. The physician E/M visit for the monthly inspection is included in the 24 legislated visit limit.
5. There must be medical evidence that the recipient does not have any of the contraindications listed in **Section 4.0**.

## **6.0 Providers Eligible to Bill for the Procedure**

Physicians enrolled in the N.C. Medicaid program who perform this service may bill for this service.

## **7.0 Additional Requirements**

There are no additional requirements.

## **8.0 Billing Guidelines**

Reimbursement requires compliance with all Medicaid guidelines including obtaining appropriate referrals for recipients enrolled in the Medicaid Managed Care programs.

### **8.1 Claim Type**

Providers bill professional physician services on the CMS-1500 claim form.

### **8.2 Diagnosis Codes that Support Medical Necessity**

Providers must bill ICD-9-CM diagnosis code, 733.82 "Non-union of fracture" to support medical necessity.

### **8.3 Procedure Codes**

CPT codes that are covered by the N.C. Medicaid program:

- 20974
- 20975

### **8.4 Reimbursement Rate**

Providers must bill their usual and customary charges.

## 9.0 Policy Implementation/Revision Information

Original Effective Date: April 1, 1982

### Revision Information:

Date	Section Updated	Change
9/1/05	Section 2.0	A special provision related to EPSDT was added.
12/1/05	Section 2.2	The web address for DMA's EDPST policy instructions was added to this section.